



# Issues

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## ■ Resource Shortages

- State has difficulty attracting qualified resources for technical positions
- Significant disparity between public and private sector compensation for technical positions
- Current core technologies (IDMS skills, Cobol, SNA) no longer widely taught
- Qualified personnel leave for better salaries, working conditions
- Practice of building systems increases dependency on specialist technical resources
- Most vulnerable in areas like application construction, networking and network management
- Range of technologies in use and operational dependency is growing
- Availability of qualified technical staff is critical to meeting the expected funding constraints

## ■ Increasing Disuse of State Systems

- Agencies purchasing or developing competing or parallel systems to meet information needs
- Competing systems result in redundant, inaccessible data
- Reconciliation of data in disparate systems difficult and costly
- Core applications are aging, visibly tired in light of modern technology and departmental systems
- Trend is to minimize the information submitted to core systems, which minimizes the usefulness of the central information resource



# Issues (cont'd)

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## ■ The Year 2000 Challenge

- Core administrative systems, many operational systems will not work properly in 2000
- Repairs are mandatory, governed by a fixed deadline
- Considerable resources required to repair existing systems. Little new functionality can be safely added
- Unless systems are replaced, repairs for the year 2000 must be undertaken

## ■ Resource Management

- Current information technology management approach is hybrid of centralized legacy systems management and decentralized operational systems management
- This approach, along with underlying funding differences, occasionally results in suboptimal resource allocation and needless reinvestment
- Decentralized management encourages businesses to perceive themselves as unique, creates resistance to rely on common systems
- Decentralized technology management and investment planning is consistent with business culture and management practices

## ■ Technology Gap

- Gap between current information technology and key trends is considerable, but closing
- Industry moving dramatically towards client server and packaged software implementation
- Montana is making first steps towards client server, but continues to custom-build software
- Many of the components, but not the resources, are in place for transition to new environments like



# Opportunities

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## ■ Readiness for Change

- Departmental users of systems are ready to change to new technologies and systems
- The technical environment is becoming ready (desktop, networks and servers are almost ready)
- Still some pockets of inertia, typically heavy users
- Year 2000 creates significant incentive
- Inaction will likely force departments to implement their own solutions independently

## ■ Data Warehousing

- Data warehousing offers improvement to information management and reporting environment
- Readily implemented with planned relational database product
- Good training ground for developing skills
- Can extend the life of the current environment by improving reporting capabilities

## ■ Renewed Enterprise Management

- Potential to leverage this system crisis to implement a different approach to information management
- Systems replacement, particularly if packaged software, allows the State to renew its enterprise approach to information management
- A significant number of leading organizations (public and private) have adopted enterprise-wide systems approach
- Benefits include lower overall cost of information management
- Packaged software readily enables enterprise-wide system management



# Opportunities (cont'd)

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## ■ Information Management Profile

- Opportunity to raise the profile of information management and IS organizations at the State
- SJR 23 recommendations will raise IS issues with legislative sub-committees
- Future subcommittee oversight is likely given budget and size and importance of renewal projects

## ■ Information Management Environment Improvements

- Systems overhaul provides opportunity to implement significantly improved information management environment
- Implement a single data environment
- Take advantage of new information management practices (data modeling, data management, new tools)
- Enable greater user access to information holdings

## ■ Alternative Service Delivery

- Potential to outsource information technology management
- Intent would be to increase available resource pool for system support
- May not reduce costs significantly